PHYS 2108 General Physics Laboratory I Lec. 0 Lab. 3 Cr. 1

Effective Date Summer 2004-2005

Course Description

Prerequisite: A grade of "C" or better in or registration in PHYS 2001 or 2101. Laboratory course to accompany PHYS 2001 or 2101.

Course Objectives

Students will:

1. Learn to perform laboratory exercises on abstract applications of principles (including mechanics and sound) under ideal conditions.
2. Learn to maintain a laboratory notebook, prepare an apparatus, and make observations and recordings.
3. Learn to analyze and estimate uncertainties.
4. Use graphs as analysis tools.
5. Learn to prepare a technical document.

Procedures to Evaluate these Objectives

1. Laboratory reports
2. Cumulative final exam

Use of Results of Evaluation to Improve the Course

1. Laboratory reports will be graded and reviewed to allow concept errors to be addressed.
2. Exams will be graded and examined to determine areas of teaching which could use improvement.
3. All evaluation methods will be used to determine the efficacy of the material presentation.

Detailed Topical Outline

1. Measurement—Density of Solids
2. Vectors
3. Uniformly Accelerated Motion
4. Projectile Motion
5. Coefficient of Friction
6. Uniform Circular Motion
7. Momentum and Collision
8. Rotational Motion about a fixed axis
9. Inertia Balance
10. Oscillatory Motion
11. Vibrations and Wave Motion
12. Sound Waves